

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on September 23, 2003, and the references cited therewith. Claims 1, 3-10, 12-15, 17, 21 and 23-30 are now pending in this application.

Allowable Subject Matter

Applicant notes with appreciation that claims 1, 3-8 and 12-14 were allowed.

§102 Rejection of the Claims

Claims 9, 10, 15, 17 and 24-27 were rejected under 35 USC § 102(b) as being anticipated by Phillips et al. (U.S. 5,587,880). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *M.P.E.P. '2131*. To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter. *PPG Industries, Inc. V. Guardian Industries Corp.*, 75 F.3d 1558, 37 USPQ2d 1618 (Fed. Cir. 1996). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner appears to acknowledge that Phillips et al. do not teach or suggest all of the claim limitations. The Examiner states at page 2 of the Office Action that “Phillips discloses the claimed invention except for a control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator.” Applicant respectfully submits that the Examiner’s 35 USC § 102(b) rejection is inappropriate based on that statement alone.

Applicant further respectfully submits that Phillips et al. do not teach or suggest “a control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator” as recited in claim 9; “the heater adding thermal energy to the liquid coolant when there is liquid coolant within the evaporator to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator” as recited in claim 15; or “adding thermal energy to a liquid coolant to maintain the liquid coolant at an optimum temperature for evaporation by an evaporator” as recited in claim 24.

The Examiner further states at pages 2-3 of the Office Action that “[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to include control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.”

Applicant respectfully traverses this assertion for two reasons. The first reason relates to Phillips et al. specifically teaching away from heating the cooling fluid to maintain the cooling fluid at an optimum temperature for evaporation. Applicant respectfully directs the Examiner's attention to col. 11, lines 48-55 of Phillips et al., which states:

“[t]he switch 157 is arranged to couple electric current into the coil 155 in cooling system orientations where a gravity-assisted return of the condensate to the evaporator 5 will not occur. In orientations where gravity will operate on the condensate, the heater coil 155 is shut off 12 Accordingly, as shown in FIG. 17A, the heater coil 155 does not operate.” [Emphasis added].

The second reason is that the rejection fails to establish a legally sufficient motivation that it would have been obvious to connect a control to a heater to maintain the coolant at an optimum temperature for evaporation by the evaporator. Applicant respectfully submits that the assertion of “[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to include control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art” is a mere conclusory statement that fails to provide any objective evidence of obviousness.

Applicant respectfully submits that the Examiner's statement is analogous to those made by the Examiner and Board in the recently decided case *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002).

“With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that 'the demonstration mode is just a programmable feature which can be used in many different devices for providing automatic introduction by adding the proper programming software' and that 'another motivation would be that the automatic demonstration mode is user friendly and it functions as tutorial' do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentability, and could not be resolved on subjective

belief and unknown authority. It is improper, in determining whether a person of ordinary skill in the art would have been lead to this combination of references, simply to use '[use] that which the inventor taught against its teacher.' *W.L. Gore V. Garlock, Inc.*, 721 F. 2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)." *Lee*, at 1343, 1344.

Applicant respectfully requests that the Examiner either cite references in support of this position, or provide an affidavit if the Examiner is relying on personal knowledge, as required by 37 C.F.R. § 1.104(d)(2).

Claims 10, 17 and 25-27 depend from respective claims 9, 15 and 24 such that these claims incorporate all the limitations of claims 9, 15 and 24. Therefore, Phillips et al. do not teach or suggest the subject matter of claims 10, 17 and 25-27 for the reasons provided above with regard to claims 9, 15 and 24.

Reconsideration and allowance of claims 9, 10, 15, 17 and 24-27 are respectfully requested

§103 Rejection of the Claims

Claims 21, 23 and 28-30 were rejected under 35 USC § 103(a) as being unpatentable over Phillips et al. As discussed above, Applicant respectfully traverses the rejection because Applicant can not find in Phillips et al. any teaching or suggestion of: "a control connected to the heater to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator when there is liquid in the evaporator" as recited in claim 21; or "a control adapted to be connected to the heater to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator when there is liquid in the evaporator" as recited in claim 28.

Claims 23 and 29-30 depend from respective claims 21 and 28 such that these claims incorporate all the limitations of claims 21 and 28. Therefore, Applicant traverses the rejection of claims 23 and 29-30 for the reasons provided above with regard to claim 21 and 28.

Reconsideration and allowance of claims 21, 23 and 28-30 are respectfully requested.

Applicant Comment on Examiner's Response to Arguments

The Examiner states at page 2 of the Office Action that "[i]n response to applicant's argument in reference to claims 9, 15, 24, and 28, that the references fail to show certain features

of applicant's invention, it is noted that the features upon which applicant relies (i.e., a heater constructed and arranged to supply thermal energy to the liquid coolant in combination with a pump) are not recited in the rejected claim(s)."

Applicant respectfully traverses the assertion because Applicant is not, or has not, relied on the features referred to by the Examiner with regard to claims 9, 15, 24, and 28. Applicant respectfully submits that Phillips et al. do not teach or suggest:

- i. "a heater to add thermal energy to the coolant" in combination with "a control connected to the heater to maintain the coolant at an optimum temperature for evaporation by the evaporator" as recited in claim 9;
- ii. "the heater adding thermal energy to the liquid coolant when there is liquid coolant within the evaporator to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator" as recited in claim 15;
- iii. "adding thermal energy to a liquid coolant to maintain the liquid coolant at an optimum temperature for evaporation by an evaporator" as recited in claim 24; or
- iv. "a control adapted to be connected to the heater to maintain the liquid coolant at an optimum temperature for evaporation by the evaporator when there is liquid in the evaporator" as recited in claim 28.

RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/897793

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Title: METHOD AND APPARATUS FOR DISSIPATING HEAT FROM AN ELECTRONIC DEVICE

Assignee: Intel Corporation

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Andrew Peret (262-646-7009) or the below signed attorney (612-349-9592) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

IOAN SAUCIUC ET AL.

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 24 day of November, 2003.